

APPARATUS AND METHOD FOR BOUNDARY DETECTION IN VECTOR
SEQUENCES AND EDGE DETECTION IN COLOR IMAGE SIGNALS

ABSTRACT OF THE DISCLOSURE

5 There is disclosed an apparatus and method for boundary
detection in vector sequences and edge detection in color image
signals. A boundary detection controller analyzes a vector sequence
that represents a signal. A frequency dependent function is used to
calculate a modified first order difference (MFD) of the vector
10 sequence, first as a vector quantity, then as a scalar quantity. A
local maximum of the MFD scalar quantity that is greater than a
predetermined threshold value identifies a boundary location. The
boundary detection controller also analyzes luminance and
chrominance portions of a color image signal to locate luminance
15 edges and chrominance edges in a color image.